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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. |
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| 08/866,607 | 05/30/97 | SOVIK | M TU997004 |

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| EXAMINER | |
|---|---|
| HOFF, M | |
| **ART UNIT** | **PAPER NUMBER** |
| 2819 | 8 |

**DATE MAILED:** 03/02/99

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

| Office Action Summary | Application No. 08/866,607 | Applicant(s) Sovik |
|---|---|---|
| | Examiner Marc Hoff | Group Art Unit 2819 |

☒ Responsive to communication(s) filed on *Dec 21, 1998* .

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire *three* month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

**Disposition of Claims**

☒ Claim(s) *1-34* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-8, 12-19, 23-30, and 34* is/are rejected.

☒ Claim(s) *9-11, 20-22, and 31-33* is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

**Application Papers**

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. § 119**

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____ .

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____ .

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

**Attachment(s)**

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

*--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
>
> > (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1, 5-8, 12, 16-19, 23, 27-30, and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Clark, II et al.

Clark, II et al. teach a method of data compression, embodied as a programmed product stored on signal-bearing media, and performed with reference to data storage, comprising receiving data blocks, compressing the data blocks, evaluating the resulting compression, and ceasing compression for subsequent data blocks if the compression fails to satisfy predetermined compression criteria (e.g., unsatisfactory compression ratio). Note especially Figure 2, and cols. 3-4, of Clark, II et al.

As implicitly conceded by Applicants, Clark, II et al. teach determining an aggregate compression ratio, determining whether the aggregate compression ratio exceeds a threshold, and if so, deeming that the compression satisfies predetermined criteria. Clark, II teaches determining the compression ratio as a moving average. See col. 3, line 51 of Clark, II et al.

Applicants claim no further definition of the term "data block." At page 9 of the specification, Applicants refer to a block as "preferably ... a contiguous group of related data." Clark, II et al. disclose in Figure 2 a repeating process or receiving raw data and compressing

same; at column 3, lines 28-32, Clark, II et al. recite that "[t]he raw data is preferably in the form of an 8 bit character which, alone or in conjunction with a string of prior characters, is the subject of a search in the dictionary at step 38." The Examiner considers the repetitive input of 8 bit raw data taught by Clark, II et al. to meet the claimed recitation of "receiving multiple input data blocks."

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 2-4, 13-15, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, II et al.

As noted above, Clark, II et al. teach all the features of the claimed invention, except for determining how many of a predetermined number of data blocks were compressed sufficiently, rather than computing an average compression ratio of those blocks, and ceasing compression for a predetermined time upon determination that compression is not effective, rather than ceasing compression until satisfaction of predetermined criteria, such as Clark, II et al.'s determination that compression would once again be effective on the raw data.

The person having ordinary skill in the art would have found it obvious to modify Clark, II et al. to count the number of data blocks that were compressed "sufficiently," i.e. above a predetermined threshold. Clark, II et al. teaches computing a compression coefficient as a moving

average of the compression performance of the system. Such computation necessarily involves at least two addition operations and one division operation each time the coefficient is updated. The person having ordinary skill in the art would have recognized the potential time savings associated with simply counting a block if it was sufficiently compressed, relative to the multi-step mathematics of determining a compression coefficient. Such a skilled artisan would have been motivated to employ a counting method if the processing time saved were considered more important than the precision lost, relative to the Clark, II et al. system.

5. Claims 9-11, 20-22, and 31-33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. Applicants' arguments filed December 21, 1998 have been fully considered but they are not persuasive.

In the absence of evidence that Applicants' amendatory language renders particular claims allowable over the prior art of record, Applicants' unsupported assertions that certain limitations are not taught by the Clark, II reference are not well taken, and the rejection of claims containing that language is maintained.

The Examiner considers Applicants' remarks with respect to the claims reciting termination of compression for a predetermined time period persuasive, and withdraws the rejection of those claims.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Hoff whose telephone number is (703) 308-1677.

Marc Hoff
February 28, 1999

Marc S. Hoff
Primary Examiner